Figure 1: Sequential Flow of Events

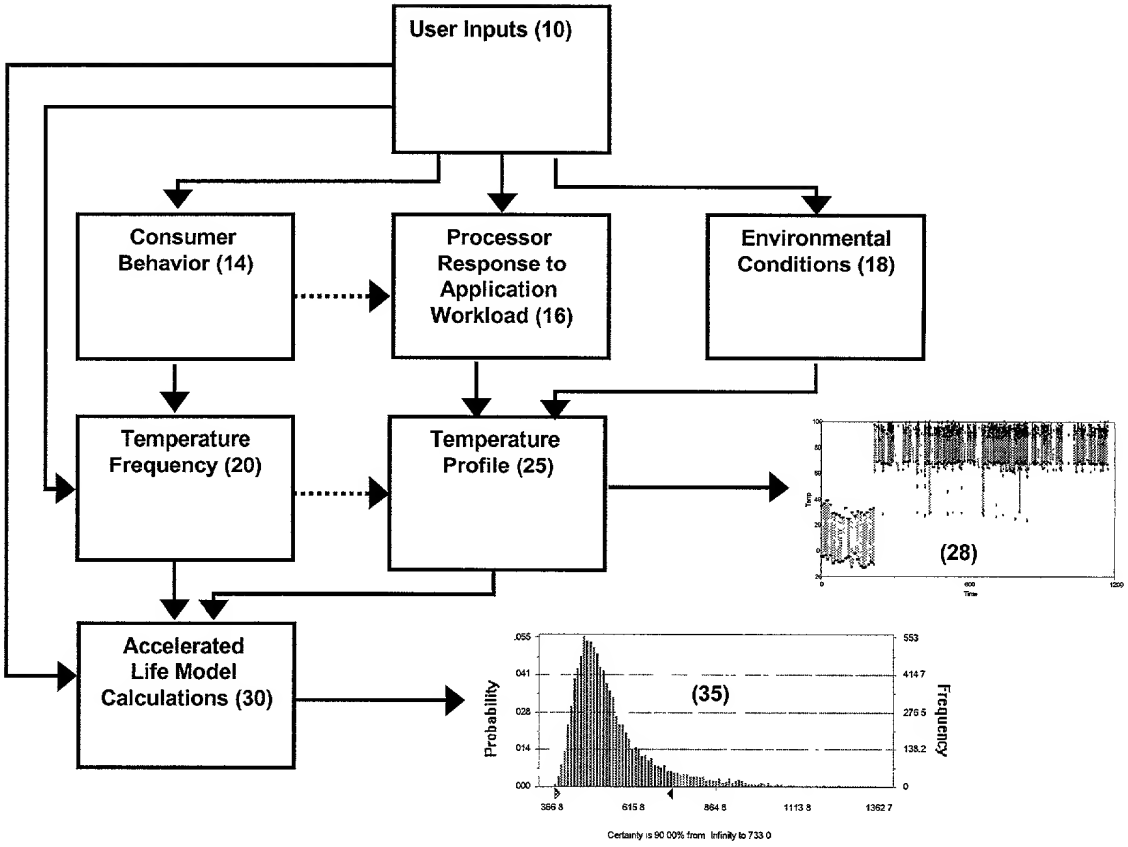

Figure 2: Depiction of Graphical User Interface for Design Inputs

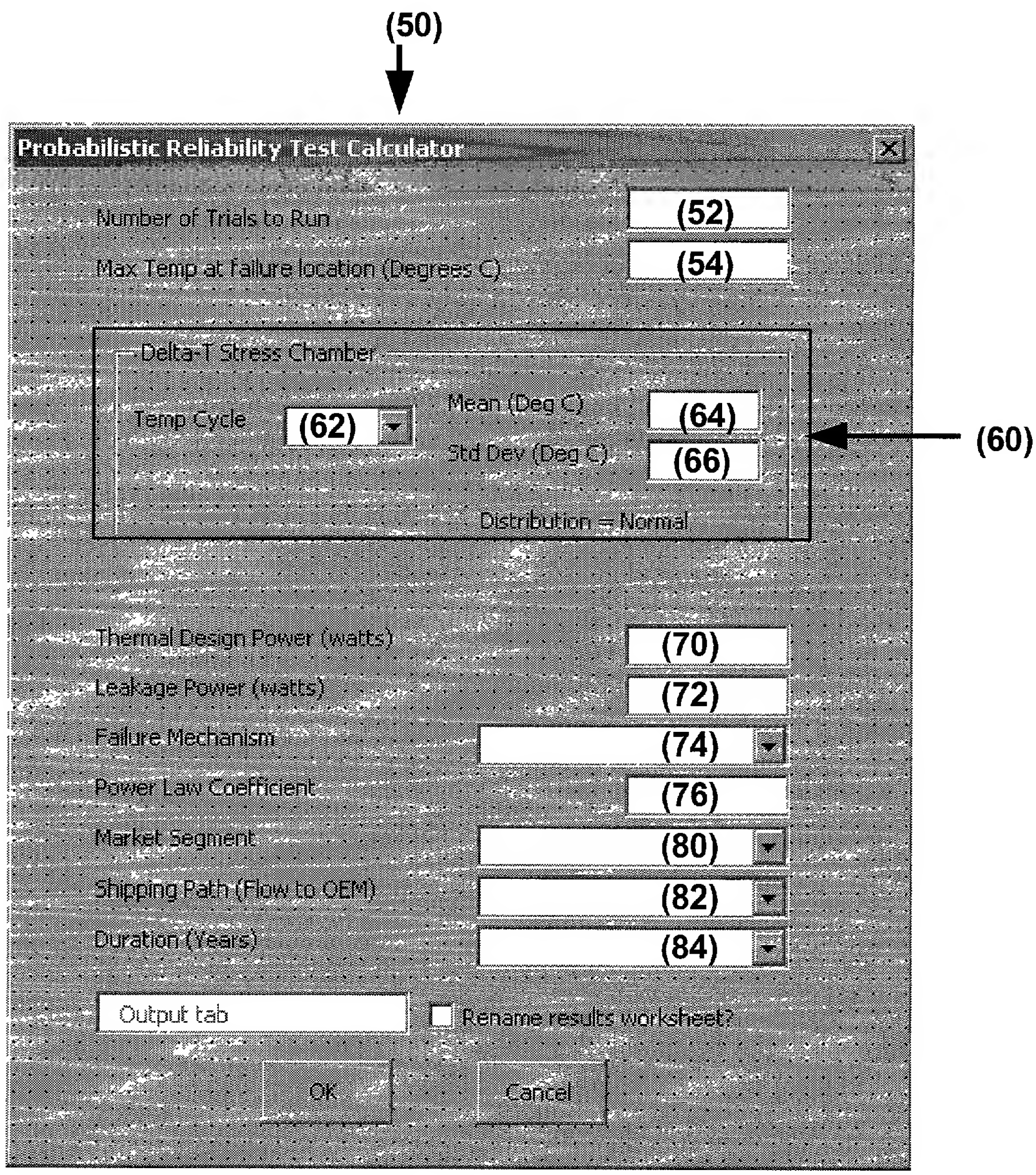

Figure 3: Representative Temperature Response

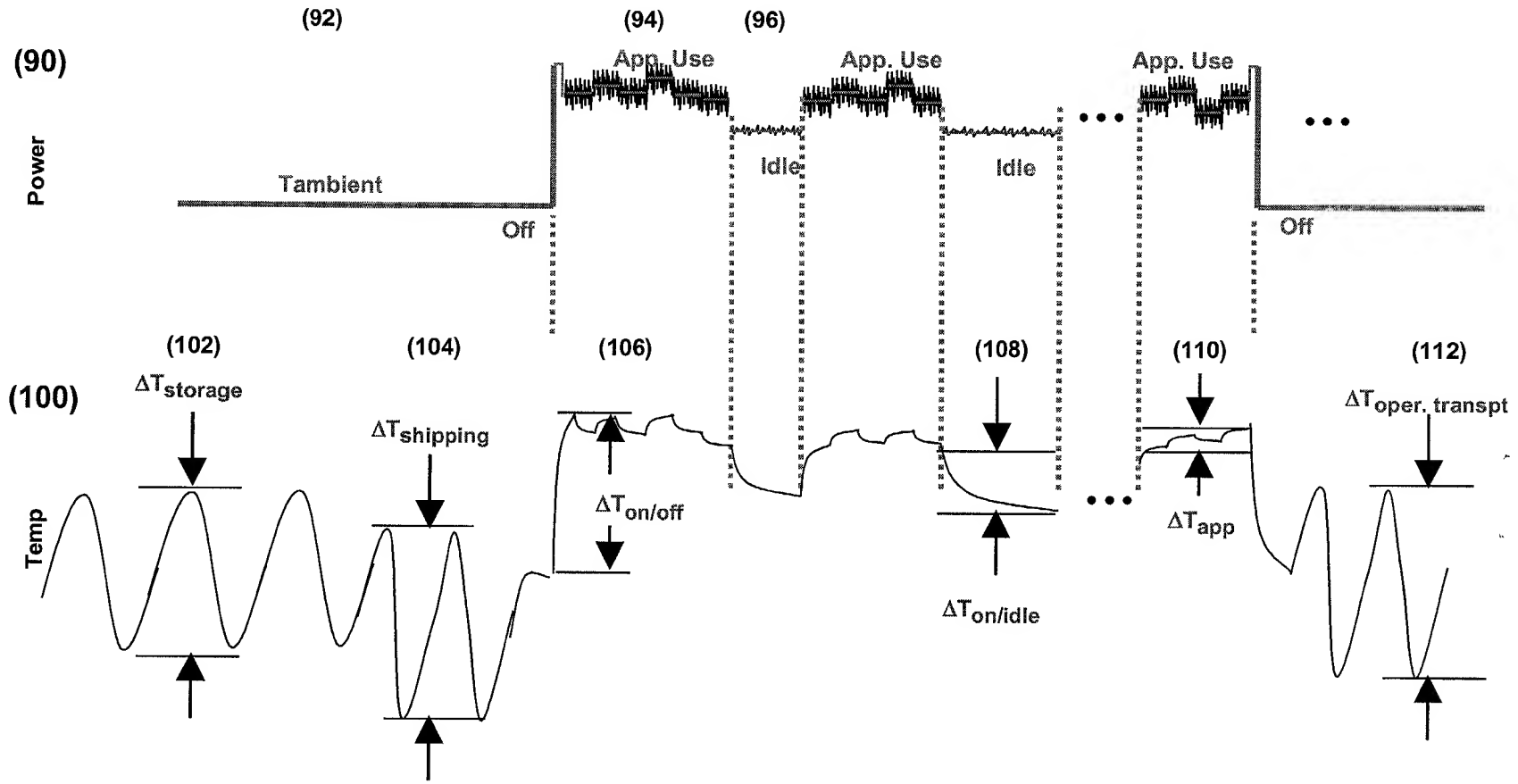

Figure 4: Modification to Coffin-Manson empirical Model

(205) (206) (207) (208)

$$N_{Accel\_Total} = N_{Accel\_Storage} + N_{Accel\_Shipping} + N_{Accel\_Operating}$$

$$N_{Use\_Stor.} \cdot \left(\frac{\Delta T_{Storage}}{\alpha_{Storage} \cdot \Delta T_{Accel}} \right)^n$$

(210)

$$N_{Ship,air} \cdot \left(\frac{\Delta T_{Ship,air}}{\alpha_{Ship,air} \cdot \Delta T_{Accel}} \right)^n + N_{Ship,grnd} \cdot \left(\frac{\Delta T_{Ship,grnd}}{\alpha_{Ship,grnd} \cdot \Delta T_{Accel}} \right)^n$$

(211) (212)

$$N_{Use\_On/Idle} \cdot \left(\frac{\Delta T_{Use\_On/Idle}}{\alpha_{On/Idle} \cdot \Delta T_{Accel}} \right)^n + N_{Use\_App} \cdot \left(\frac{\Delta T_{Use\_App}}{\alpha_{Use\_App} \cdot \Delta T_{Accel}} \right)^n + N_{Oper\_transport} \cdot \left(\frac{\Delta T_{Oper\_transport}}{\alpha_{Op.\_trans} \cdot \Delta T_{Accel}} \right)^n$$

(213) (214) (215)

Figure 5: Input and output data from the Accelerated Life Testing algorithm

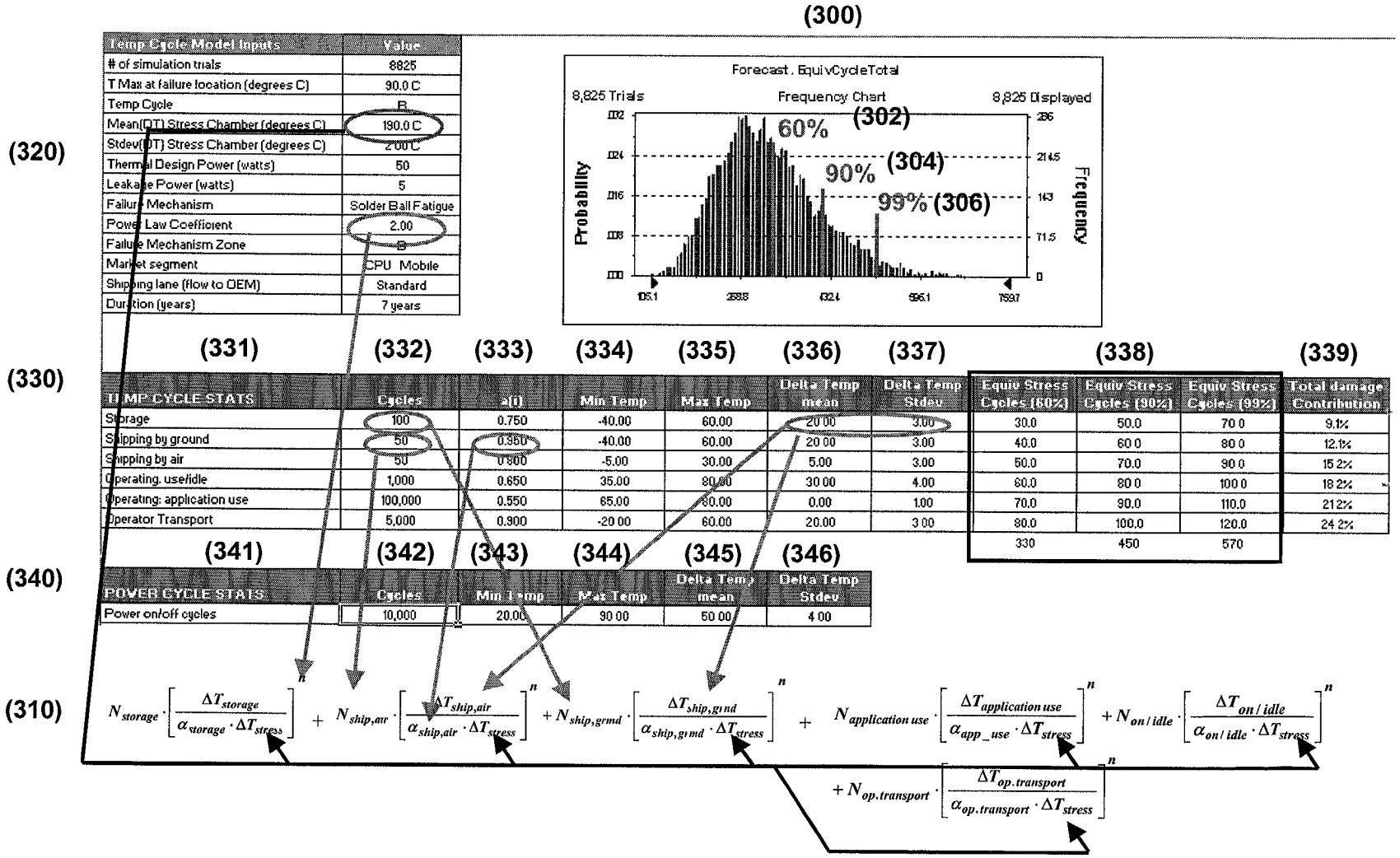

Figure 6: Illustration depicting how component location influences the size and magnitude of temperature fluctuations